

REMARKS

Reconsideration and the timely allowance of the pending claims, in view of the following remarks, are respectfully requested.

By this Amendment, claims 26-29, 31-40 and 42-45 are cancelled without prejudice or disclaimer to the subject matter therein and claims 46-59 are newly added. Support for new claims 46-59 may be found throughout the original disclosure. No new matter has been added. Accordingly, after entry of this Amendment, claims 46-59 will be pending in the patent application.

The Examiner rejected claims 26, 28-29, 37, 39-40, and 44-45 under 35 U.S.C. §103(a) as allegedly being unpatentable over Li '771 (US Patent No. 5,772,771); claims 27 and 38 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Li '771 in view of Tomoyasu '103 (U.S. Pat. No. 5,900,103); and claims 26-29, 31-32, 37-40, and 42-45 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Tei '215 (U.S. Patent Pub. No. 2002/0011215) in view of Tomoyasu '103 and Li '771.

Claims 26, 28-29, 37 and 44-45 are cancelled without prejudice or disclaimer to the subject matter therein, thus rendering moot the rejection of these claims.

However, to the extent that the Examiner considers sustaining the rejections relative to new claims 46-59, Applicant respectfully points out the distinctions between the new claims and the applied art as follows

Claim 46 recites a plasma processing apparatus for applying a plasma process to a substrate, the plasma processing apparatus comprising, *inter alia*, "...a gas introducing portion configured to introduce a gas into the process chamber; ... a gas exhaust line connecting said gas introducing portion to said second vacuum device,...wherein said gas introducing portion includes: an inlet port through which the gas is introduced into said gas introducing portion; an outlet port through which the gas is evacuated from said introducing portion by said second vacuum device; a gas passage provided in said gas introducing portion and connected to said inlet port and said outlet port; and a plurality of gas nozzles connected to said gas passage, wherein said gas exhaust line is directly connected to said outlet port of said gas introducing portion."

Unlike claim 46, there is nothing in any of the applied references that teach or suggest the combination of features recited in claim 46. Li '771 discloses a deposition chamber 2 including a housing 4 defining a chamber 18 which houses a substrate support 14. (*See, e.g.*, FIG. 1 of Li '771). A processing gas is provided to manifold 36 at opposite sides of the manifold to disperse gas through a plurality of nozzles 34 within the chamber 18. *Id.* The processing gas is supplied to manifold 36 via a pair of gas feed lines 70, 72, which are coupled to a common gas feed line 80. (*See, e.g.*, col. 4, lines 16-24 and FIG. 4 of Li '771). Li '771 further discloses that, during cleaning operations, the common gas feed line 80 is coupled to a cleaning gas line 82 via a shutoff valve 88 and ultimately to a vacuum pump 84 to exhaust the gases via line 82. (*See, e.g.*, col. 4, lines 38-54 and FIG. 5 of Li '771). With this said, there is nothing in Li '771 that remotely discloses, teaches or suggests a gas introducing portion with its respective attributes, i.e. a gas introducing portion including an inlet port through which the gas is introduced into the gas introducing portion; an outlet port through which the gas is evacuated from the introducing portion by the second vacuum device; a gas passage provided in the gas introducing portion and connected to the inlet port and the outlet port; and a plurality of gas nozzles connected to the gas passage, wherein the gas exhaust line is directly connected to the outlet port of the gas introducing portion, as required by claim 46.

Regarding Tomoyasu '103, this reference merely discloses the use of a vaporizer 732A made integral to an upper electrode 730A of the process chamber 710A with an intermediate chamber 770 formed under it. The vaporizer housing 742A includes a gas outlet side 774 in which a plurality of apertures 772 are formed. A gas pipe 776 is communicated with the intermediate chamber 770 in the upper electrode 730A to introduce second gas and a bypass 750A extends from that portion of the upper electrode 730A (which is opposed to the gas pipe 776) to exhaust unnecessary gas from the upper electrode 730A. Tomoyasu '103 fails, however, to disclose, teach or suggest a gas introducing portion with its respective attributes, as required by claim 26.

Equally deficient, Tei '215 discloses a plasma apparatus including a pressure reducible container, a gas supply means for supplying gas into the container for plasma excitation, an evacuation means for evacuating the inside of the container and a microwave supply means for supplying a microwave into the container. There is, however, nothing in Tei '215 that discloses, teaches or suggests the use of a gas introducing portion, as recited by claim 26.

Accordingly, any proper combination of Li '771, Tomoyasu '103 and Tei '215 cannot result, in any way, in the invention of claim 46.

Claims 47-52 are patentable over Li '771, Tomoyasu '103 and Tei '215 and a combination thereof at least by virtue of their dependency from claim 46 and for the additional features recited therein.

Claim 53 is patentable over Li '771, Tomoyasu '103 and Tei '215 and a combination thereof for at least similar reasons as provided above for claim 46 and for the features recited therein. Claims 54-59 are patentable over Li '771, Tomoyasu '103 and Tei '215 and a combination thereof at least by virtue of their dependency from claim 53 and for the additional features recited therein.

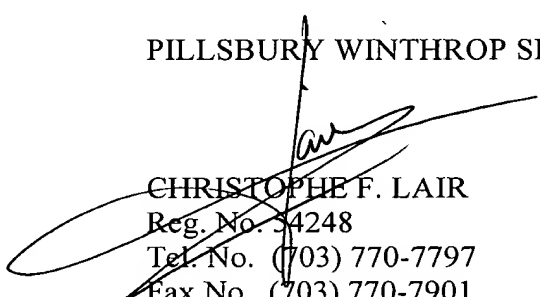
All matters having been addressed and in view of the foregoing, Applicants respectfully request the entry of this Amendment, the Examiner's reconsideration of this application, and the immediate allowance of all pending claims.

Applicants' Counsel remains ready to assist the Examiner in any way to facilitate and expedite the prosecution of this matter. Please charge any fees associated with the submission of this paper to Deposit Account Number 033975, Order No. 040258-0279274.

The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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